

**Abstract:**

*Page 26, the abstract, replace with the following new abstract paragraph:*

~~--- MIMO-BASED SPACE-TIME MULTIPLE-INPUT MULTIPLE-OUTPUT WIRELESS SENSOR NETWORKS COMMUNICATION COMMUNICATIONS~~

Abstract of the Disclosure

This invention presents a ~~MIMO-based space-time~~ MIMO wireless sensor networks communication ~~communications~~, which is expected to utilize a larger of size sensor nodes in commercial ~~environment~~ environments, potentially hostile and militarily sensitive environments. Every sensor node of the ~~MIMO-based space-time~~ MIMO sensor networks communication ~~communications~~ is to support data collection, signal processing and analysis, and transmission fashion. The present invention also develops novel approaches of advanced space-time processing with the MIMO sensor-antenna architecture, spread spectrum, and adaptive communication signal processing that simultaneously exploit temporal and spatial diversity for seamless sensor networks communications, thereby converting spatially distributed sensor nodes into efficient, robust, reliable, ~~reliability~~, and secure wireless sensor networks communications.